

# Multi-Photo detector Array 80 channels Rack-Mountable model MPA-100

The MPA-100 is a highly integrated rack model of pigtailed photo-detector array. Multi-channels optical power from MPO or MTP connectors are detected by photo-detector array. Photo-detector of Si type for 850nm range and InGaAs type for 1260~1610nm are available. The detected photo-current are converted to voltage output using a 16-bit DAQ interface. The dimension is (W)482.6x(D)430x(H)44mm. The highly integrated MPA-100 is available up to 80 channels. The MPA-100 is useful for many applications, such as testing and monitoring of transceivers for data communications in data centers, broadband / CATV, and telecommunications. Tap-PD model (fibers input&output, a partial power detection) is also available upon customer's request.



### Features

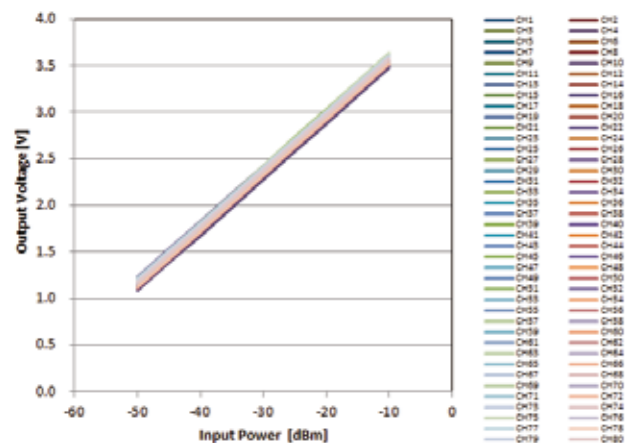
- ▶ Multi-channels photo-detector array up to 80 channels
- ▶ Power monitoring and testing at 850 nm SR4, SR10
- ▶ Wide-operating wavelength range: 1260 ~ 1610nm
- ▶ Wide-optical input range: -50 ~ -10 dBm
- ▶ Excellent linearity: +/- 0.6dB
- ▶ MPO adapter / High-density MPO, MTP connectors
- ▶ 16-bit DAQ voltage output by a USB interface
- ▶ 1U Size (44mm) slim design
- ▶ Custom model is available upon request

### Applications

- ▶ Optical power testing of transceivers for IEEE 802.3ba based SR4, SR10, LR4, ER4
- ▶ Optical power monitoring for data communications, broadband / CATV networks, and telecommunication networks
- ▶ Optical power monitoring in data center equipment
- ▶ Optical power monitoring of Interconnections of active optical cables.

### Measurements

Example of input power and output voltage for 80 channels in a MPA-100-10-8-IR-SM-MT-01.



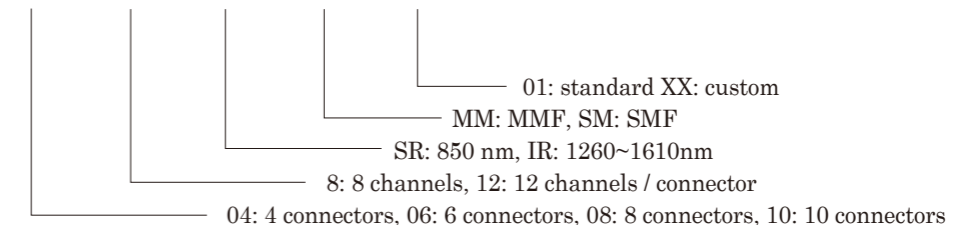
### Specifications

Category	Parameter	Unit	Min.	Typ.	Max.	Notes	
Optical	Total optical input ports	channels	32		80	Channels / optical connectors X connectors	
	Optical connectors	-	4		10	MPO or MTP	
	Optical channels / connector	-	8		12		
	Operating wavelength range		nm	840		860	SR: Silicon photodiode
			nm	1260		1610	IR: InGaAs photodiode
	Optical input power range	dBm	-50		-10	per channel	
	Absolute maximum optical input power	dBm			+10		
	Optical noise limit	dBm			-55	Typ. -60 dBm	
	Optical fiber	-		MMF, SMF		MMF: Core dia. 50 mm, Clad dia. 125mm SMF: ITU-T G.652	
	Optical adapter	-		MPO adapter		Vendor: OFS or Nissin Kasei	
Optical connector	-		MPO, MTP		Standard: Gender: Pins(male) Polish: Angled polish (8degree) Vendor: OFS		
Electrical	DAQ	bit		16		NI USB 6255 OEM	
	Data sampling rate	Samples/s		9,375			
	PD response bandwidth *1	kHz	10			Typ. 100 kHz ~	
	Linearity	dBm	-0.6		0.6	Typ. +/-0.1 dB, optical input power range	
	Digital Input & Output *2	-		USB			
	wavelength calibration data			SR, No		IR: data format of wavelength, optical power, output voltage	
				IR, Yes			
Power consumption *3	W		20	30	DC12V		
Environmental	Operating temperature	degC	15		+35	RH: 85%Max, No condensation	
	Storage temperature	degC	-5		+70	RH: 85%Max, No condensation	
Mechanical	Dimensions (W)x(D)x(H)	mm	(W)482.6x(D)430x(H)44				
	Weight	kg	4.4				
Warranty	-	Year	1				

\*1 The bandwidth is defined as 3dB down (Linear scale: 0.7071) of optical frequency response. The response slope is designed in 20dB/dec.  
\*2 Attached 2 meters USB cable as accessory  
\*3 Attached AC100-240V to DC12V Adapter as accessory

### Ordering Code

## MPA-100 -xx - xx - xx - xx - xx



Note: Maximum 80 channels

www.santec.com E-Mail : sales@santec.com

2019 © SANTEC CORPORATION Santec reserves the right to make changes in equipment design, components or specifications without notice.



**SANTEC CORPORATION**  
5823 Ohkusa-Nenjozaka, Komaki, Aichi 485-0802, Japan Tel. +81-568-79-3536 Fax +81-568-79-1718

**SANTEC U.S.A. CORPORATION**  
433 Hackensack Ave., Hackensack, NJ, 07601, U.S.A. Toll Free +1-800-726-8321 (santec-1) Tel. +1-201-488-5505 Fax +1-201-488-7702

**SANTEC EUROPE LIMITED**  
Grand Union Studios, 332 Ladbroke Grove, London W10 5AD Tel. +44-20-3176-1550

**SANTEC (SHANGHAI) Co., Ltd.**  
11F Room E, Hua Du Bldg., No.838 Zhangyang Road, Pudong, Shanghai 200122 China Tel: +86-21-58361261, +86-21-58361262 Fax: +86-21-58361263

